

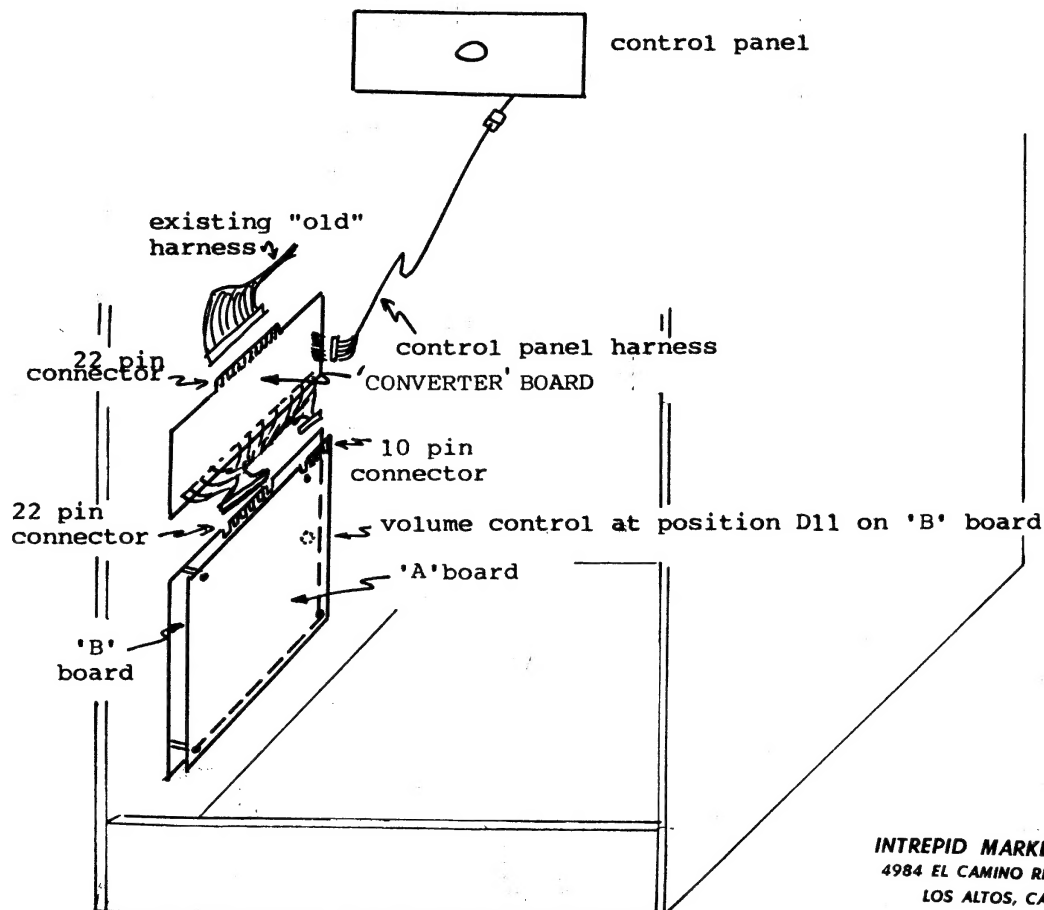
\*\*\*BEEZER\*\*\*

#### INSTALLING CIRCUIT BOARDS

1. Remove old circuit boards, save all mounting brackets.
2. Relocate upper brackets to fit larger boards.
3. Secure 'A' and 'B' boards to side of game.
4. Connect 'CONVERTER' board to 'A/B' boards as shown in diagram below.
5. Connect old main harness to 'CONVERTER' board as old set of boards you removed.
6. Assemble control panel and connect to 'CONVERTER' board at connector shown in diagram.

#### NOTE !!

The potentiometer on the 'CONVERTER' board is VOLTAGE ADJUSTMENT. PRE-SET AT FACTORY, TECHNICIAN ADJUST ONLY!!!  
The potentiometer on 'B' board at D11 is VOLUME control



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\*\*\*BEEZER\*\*\*

B. BOARD					A. BOARD				
SOLDERING SIDE		COMPONENT SIDE			SOLDERING SIDE		COMPONENT SIDE		
+5V	(B1)	22	Z	(A1)	+5V	GND	(1)	10	L (1) GND
	(B2)	21	Y	(A2)		BLUE	(2)	9	K (2)
+12V	(B3)	20	X	(A3)		GREEN	(3)	8	J (3)
	(B4)	19	W	(A4)	GND	RED	(4)	7	H (4)
	(B5)	18	V	(A5)			(5)	6	F (5)
	(B6)	17	U	(A6)		SYNC	(6)	5	E (6)
-5V	(B7)	16	T	(A7)	-5V		(7)	4	D (7)
+12V	(B8)	15	S	(A8)	+12V	+12V	(8)	3	C (8) +12V
SPEAKER (+)	(B9)	14	R	(A9)	-5V	-5V	(9)	2	B (9) -5V
	(B10)	13	P	(A10)	SPEAKER (-)	+5V	(10)	1	A (10) +5V
GND	(B11)	12	N	(A11)	GND				
	(B12)	11	M	(A12)	-5V				
	(B13)	10	L	(A13)					
PLAY 1 (DO TEST)	(B14)	9	K	(A14)					
PLAY 2 (SELECT TEST)	(B15)	8	J	(A15)					
COIN	(B16)	7	H	(A16)					
SLAM	(B17)	6	F	(A17)					
Y <sub>3</sub>	(B18)	5	E	(A18)	X <sub>3</sub>				
Y <sub>2</sub>	(B19)	4	D	(A19)	X <sub>2</sub>				
Y <sub>1</sub>	(B20)	3	C	(A20)	X <sub>1</sub>				
Y <sub>0</sub>	(B21)	2	B	(A21)	X <sub>0</sub>				
GND	(B22)	1	A	(A22)	GND				

NITE:

1. (A4) is the audio enable ground, should connect to (A11) or (A22).
2. Board A., board B. & mini track ball board's ground should connect together.
3. Mini track ball board's X<sub>0</sub>- X<sub>3</sub>, Y<sub>0</sub>- Y<sub>3</sub> connect to board B.'s X<sub>0</sub>- X<sub>3</sub>, Y<sub>0</sub>- Y<sub>3</sub>.
4. Mini track ball board's X<sub>A</sub>, X<sub>B</sub>, Y<sub>A</sub>, Y<sub>B</sub> should connect to track ball, X<sub>A</sub>, X<sub>B</sub> are horezontal control, Y<sub>A</sub>, Y<sub>B</sub> are vertical control.
5. The audio amplifier is bridge output. Do not connect speaker to ground.
6. Audio level potentiometer is at position D11.

GALAXIAN (TO BEEZER)

GND	22	Z	GND
GND	21	Y	GND
	20	X	AC 12V
	19	W	AC 12V
AUDIO (+)	18	V	AUDIO (-)
SYNC	17	U	BLUE
GREEN	16	T	RED
GND	15	S	GND
	14	R	
	13	P	
	12	N	
	11	M	
	10	L	
SERVICE SW.	9	K	
	8	J	COIN SW.
JUMPER TOGETHER	7	H	COIN METER (-)
	6	F	
	5	E	COIN METER (+) (12V)
	4	D	AC 7V
	3	C	AC 7V
GND	2	B	GND
GND	1	A	GND

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CONVERT BOARD TO CONTROL PANEL

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1. GROUND (BLACK) TO MINI TRACK BALL BLACK WIRE.
2.  $X_A$  (GREEN) TO WICO TRACK BALL GREEN WIRE.
3.  $X_B$  (YELLOW) TO WICO TRACK BALL YELLOW WIRE.
4.  $Y_A$  (PURPLE) TO WICO TRACK BALL PURPLE WIRE.
5.  $Y_B$  (BLUE) TO WICO TRACK BALL BLUE WIRE.
6. GROUND (BLACK) TO 1P, 2P SWITCH COMMON.
7. 1 PLAY (WHITE) TO 1P SWITCH.
8. 2 PLAY (BROWN) TO 2P SWITCH.
9. +5V OUT (RED) TO WICO TRACK BALL RED WIRE.
10. +5V OUT (RED) TO WICO TRACK BALL RED WIRE.
11. SPARE (GRAY) NOT USED.
12. SPARE (ORANGE) NOT USED.

# TRACKBALL INTERFACE & COUNTER DRIVER.

SOLDERING SIDE <u>B</u>		<u>A</u> COMPONENT SIDE
+ 5V	10	L + 5V
GND	9	K GND
COIN METER	8	J COIN OUT (CONNECT TO B BOARD B16)
(CONNECT TO B BOARD B18) Y <sub>3</sub>	7	H X <sub>3</sub> (CONNECT TO B BOARD A18)
(CONNECT TO B BOARD B19) Y <sub>2</sub>	6	F X <sub>2</sub> (CONNECT TO B BOARD A19)
(CONNECT TO B BOARD B20) Y <sub>1</sub>	5	E X <sub>1</sub> (CONNECT TO B BOARD A20)
(CONNECT TO B BOARD B21) Y <sub>0</sub>	4	D X <sub>0</sub> (CONNECT TO B BOARD A21)
SERVICE	3	C COIN IN
DOWN (FROM TRACKBALL) Y <sub>B</sub>	2	B X <sub>B</sub> (FROM TRACKBALL) RIGHT
UP (FROM TRACKBALL) Y <sub>A</sub>	1	A X <sub>A</sub> (FROM TRACKBALL) LEFT

\* Voltage control potentiometer is preset do not adjust!

(BEEZER)

# ADJUSTMENT SWITCHES

A SET OF DIP SWITCHES ARE LOCATED ON THE GAME LOGIC BOARD TO ADJUST FOR COINS.

\* NOTE: MAKE SURE POWER IS OFF BEFORE MAKING THESE ADJUSTMENTS.

## SWITCH SETTING:

### SWITCH B:

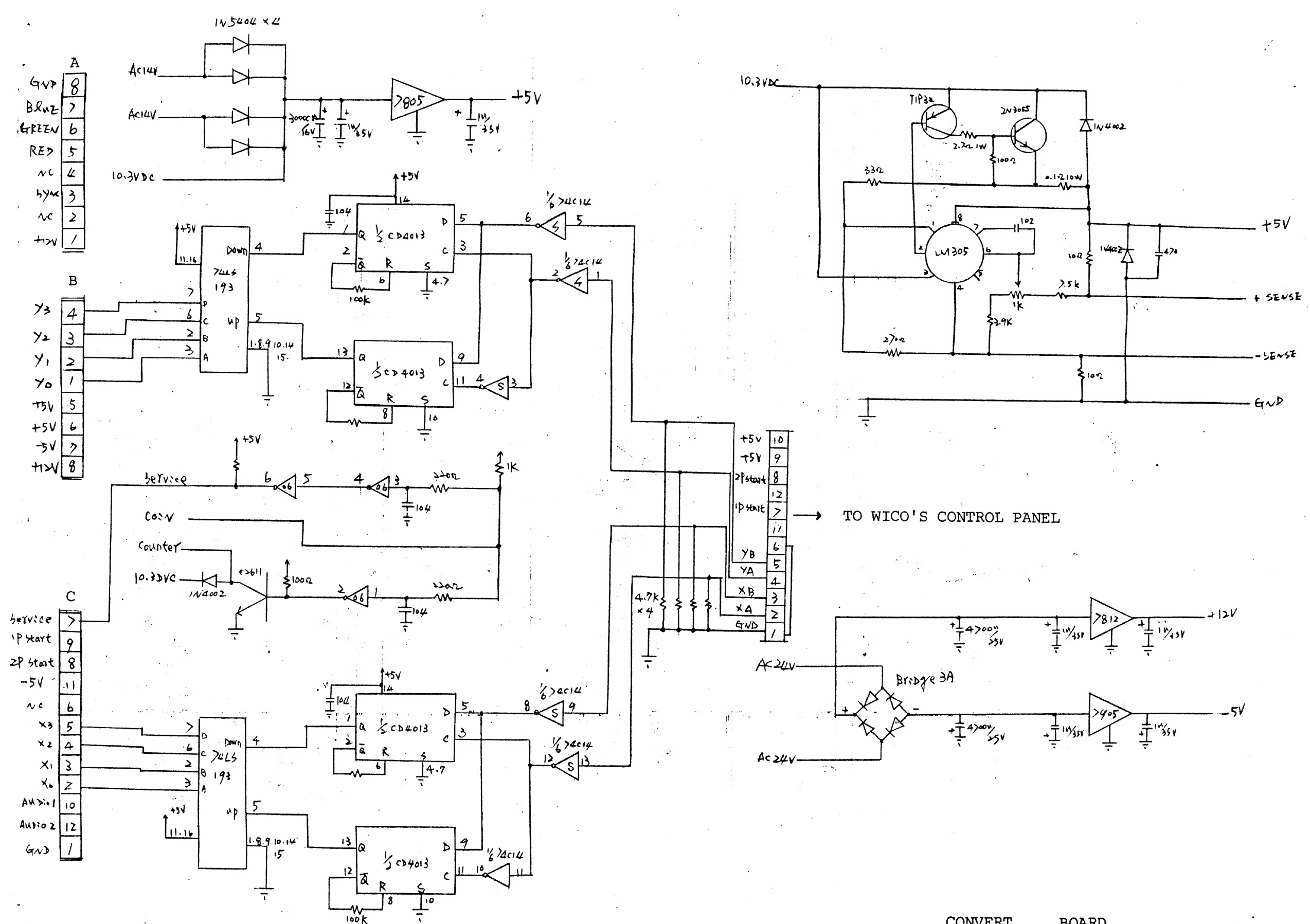
	1	2	3	4	5	6	7	8
1 COIN 1 CREDIT	OFF	OFF						
2 COIN 1 CREDIT	ON	OFF						
FREE PLAY	ON	ON						
3 BEEZER START			OFF					
4 BEEZER START			ON					
ATTRACT MODE SOUND ON				OFF				
ATTRACT MODE SOUND OFF				ON				
NO BONUS					OFF	OFF		
BONUS AT 90,000 POINTS					ON	ON		
BONUS AT 60,000 POINTS					OFF	ON		
BONUS AT 30,000 POINTS					ON	OFF		
EASY							OFF	OFF
MEDIUM EASY							ON	OFF
HARD							ON	ON
MEDIUM HARD							OFF	ON

### SWITCH A:

NOT USED
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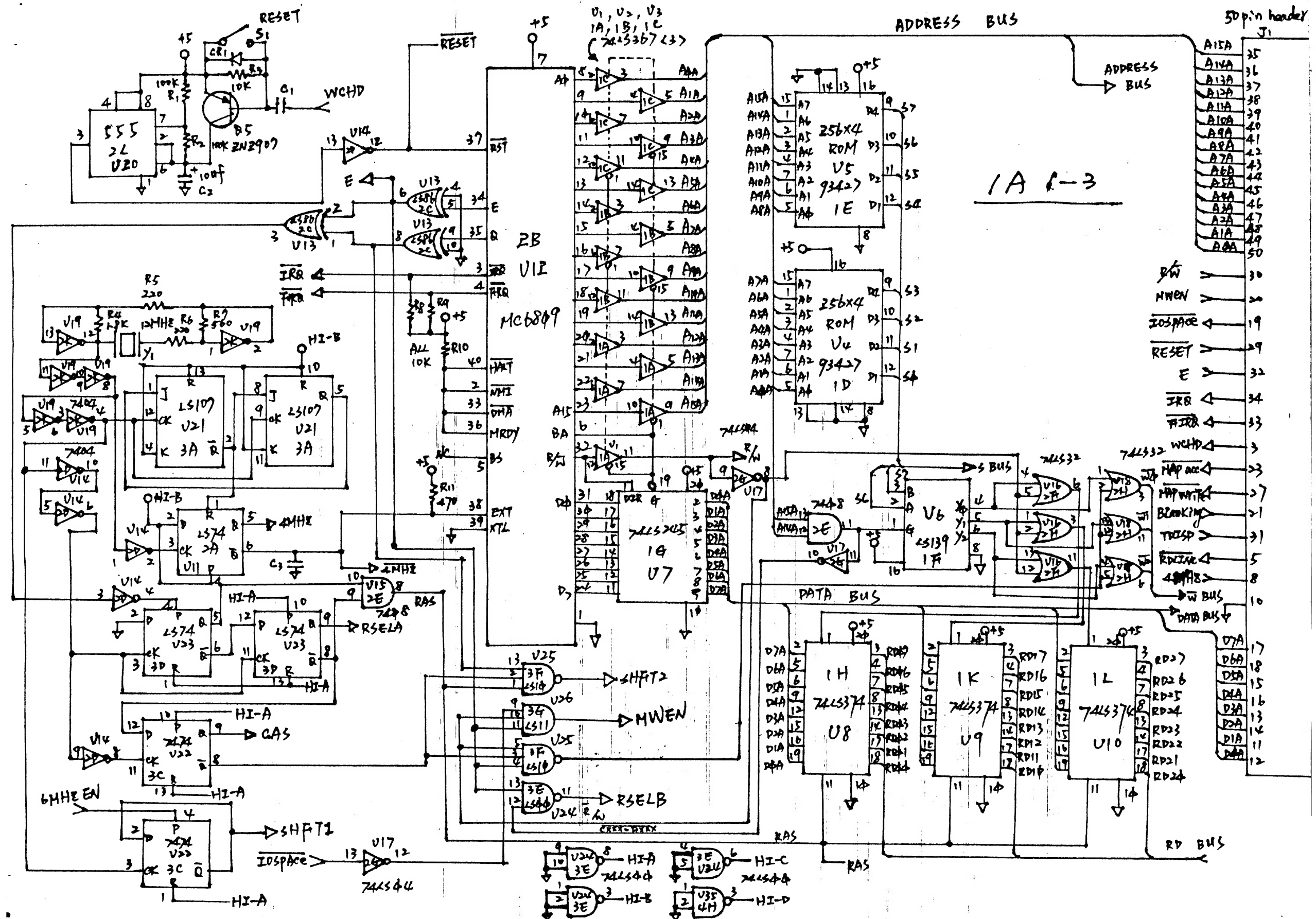
INSTRUCTION FOR TEST MODE:

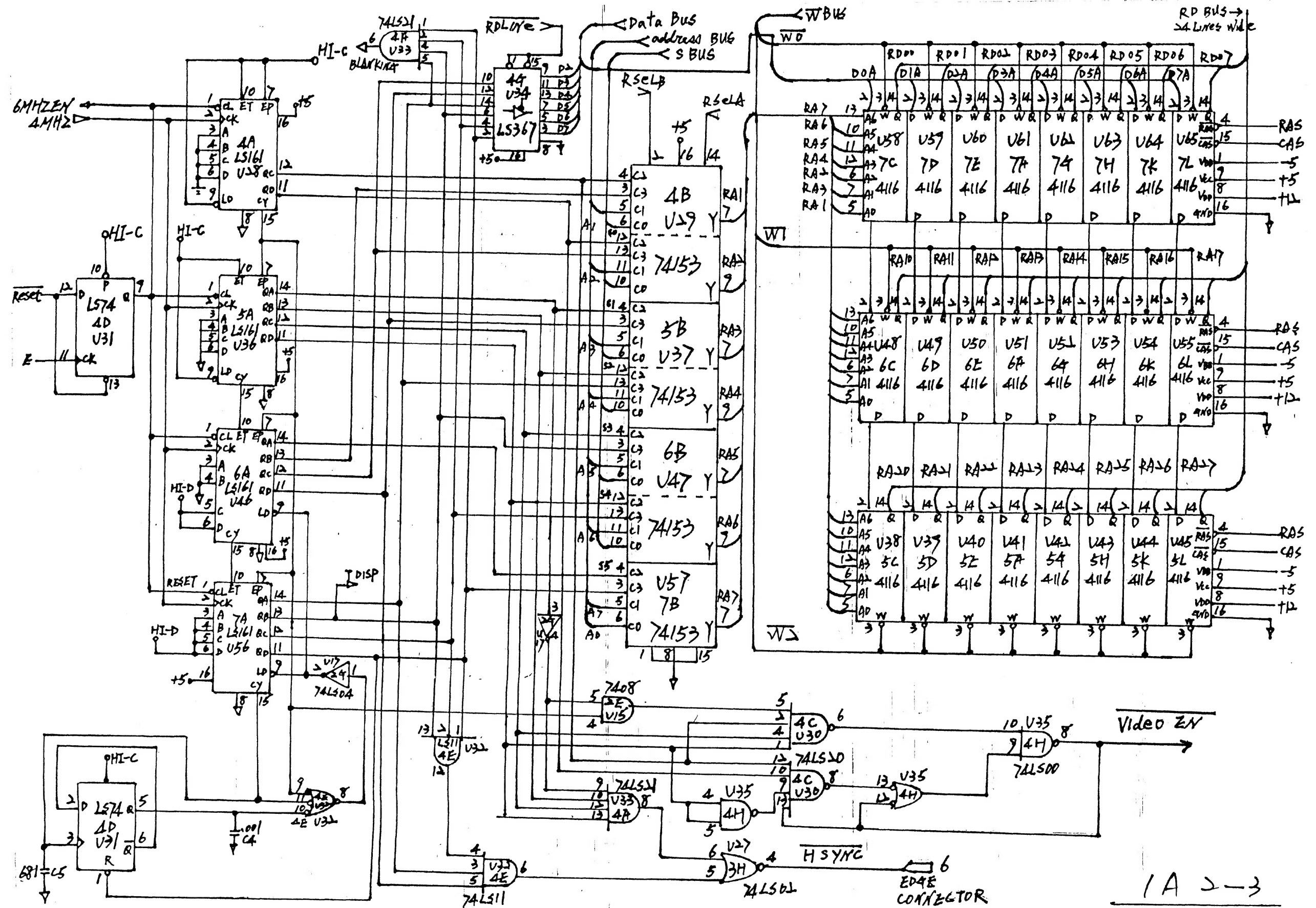
- (1) To enter test mode:
  - (a) Power down
  - (b) Turn on while holding down  
1P / 2P start switches
- (2) Now in test mode. If not, repeat (1)(a) and (1)(b).
- (3) Test manuel on screen:
  - (a) cycle to required item using 1P button
  - (b) enter specific test using 2P button
  - (c) cycle next test using 1P button
  - (d) leave test by cycling to start or  
turn off/on.

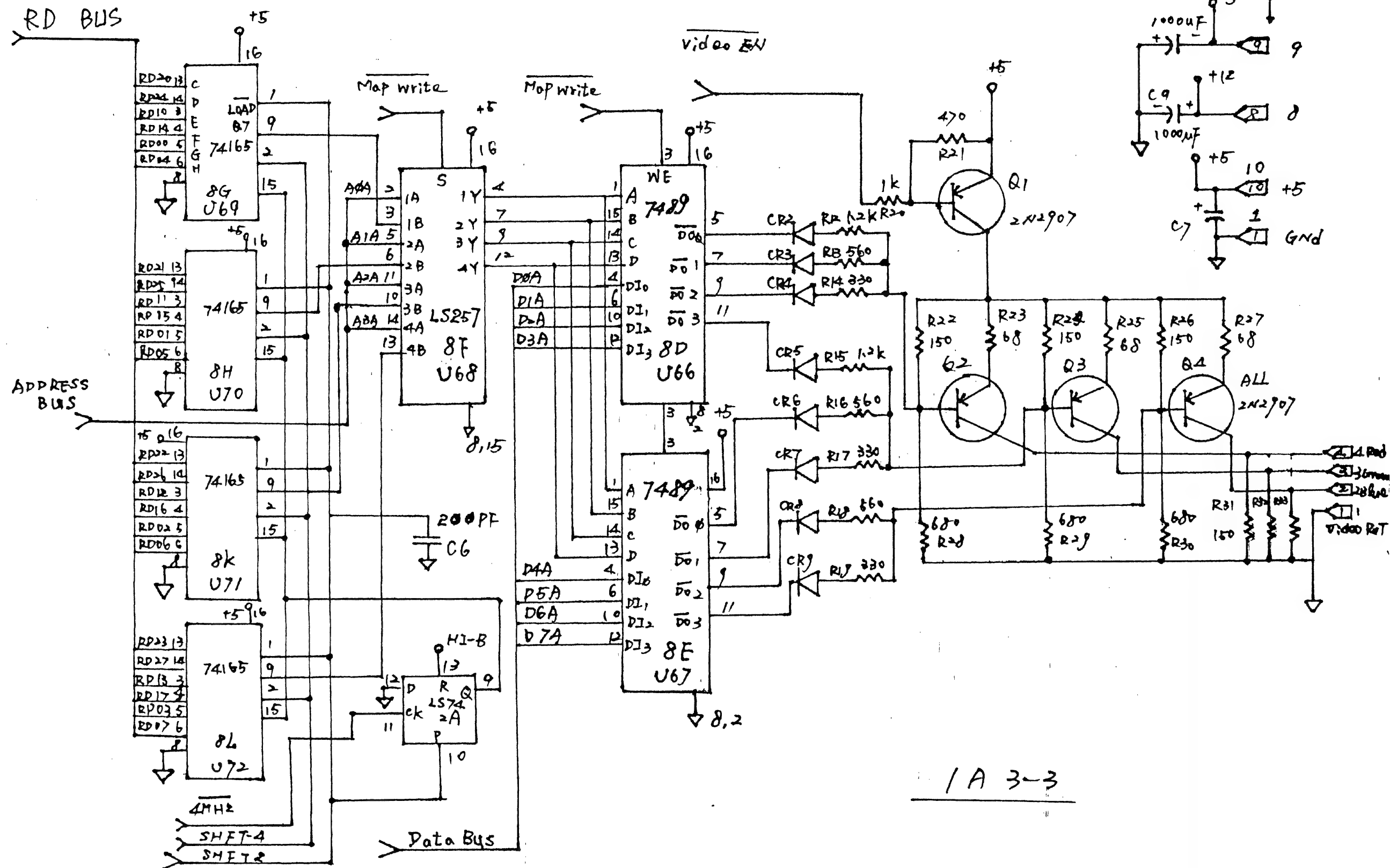


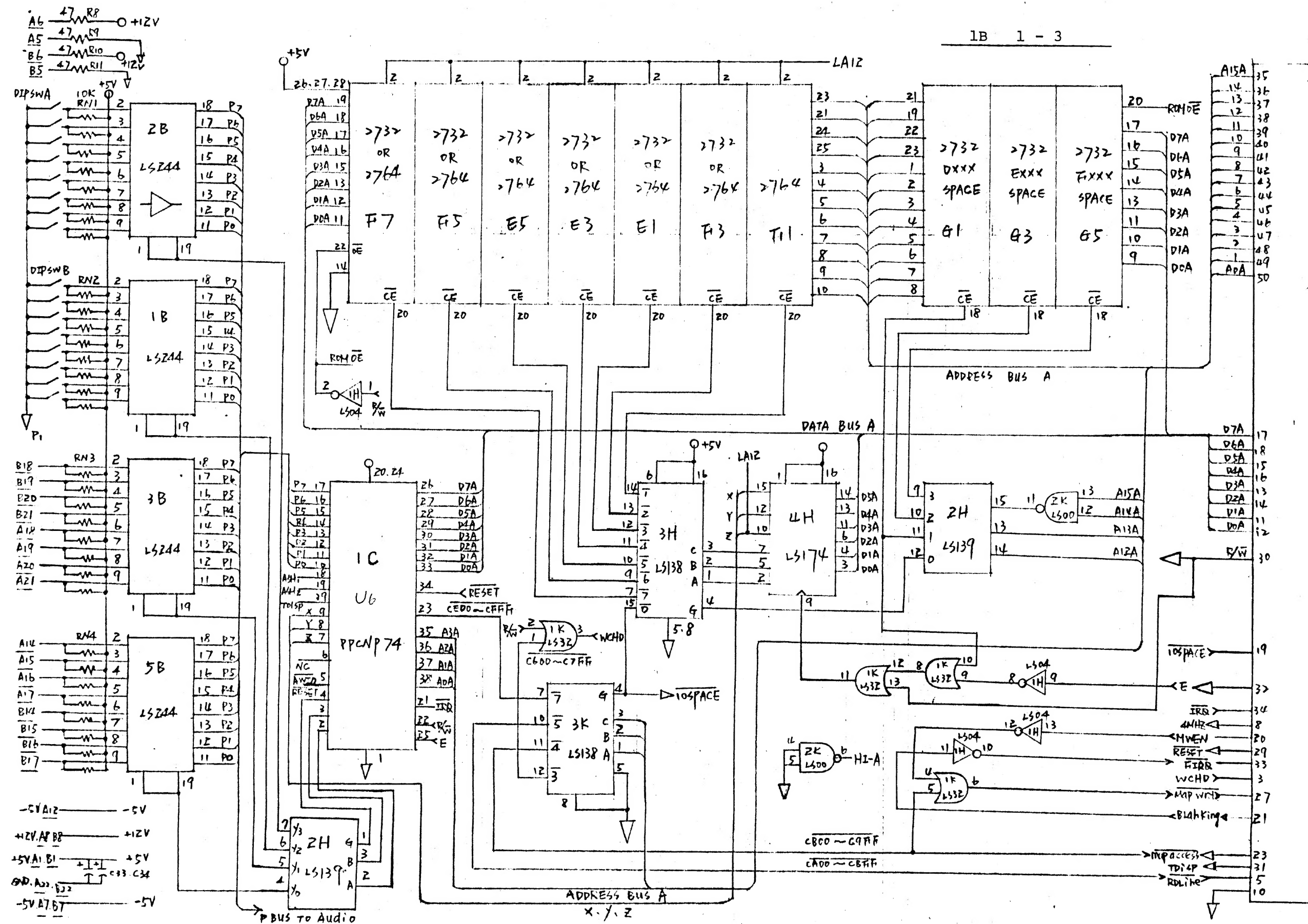
CONVERT BOARD

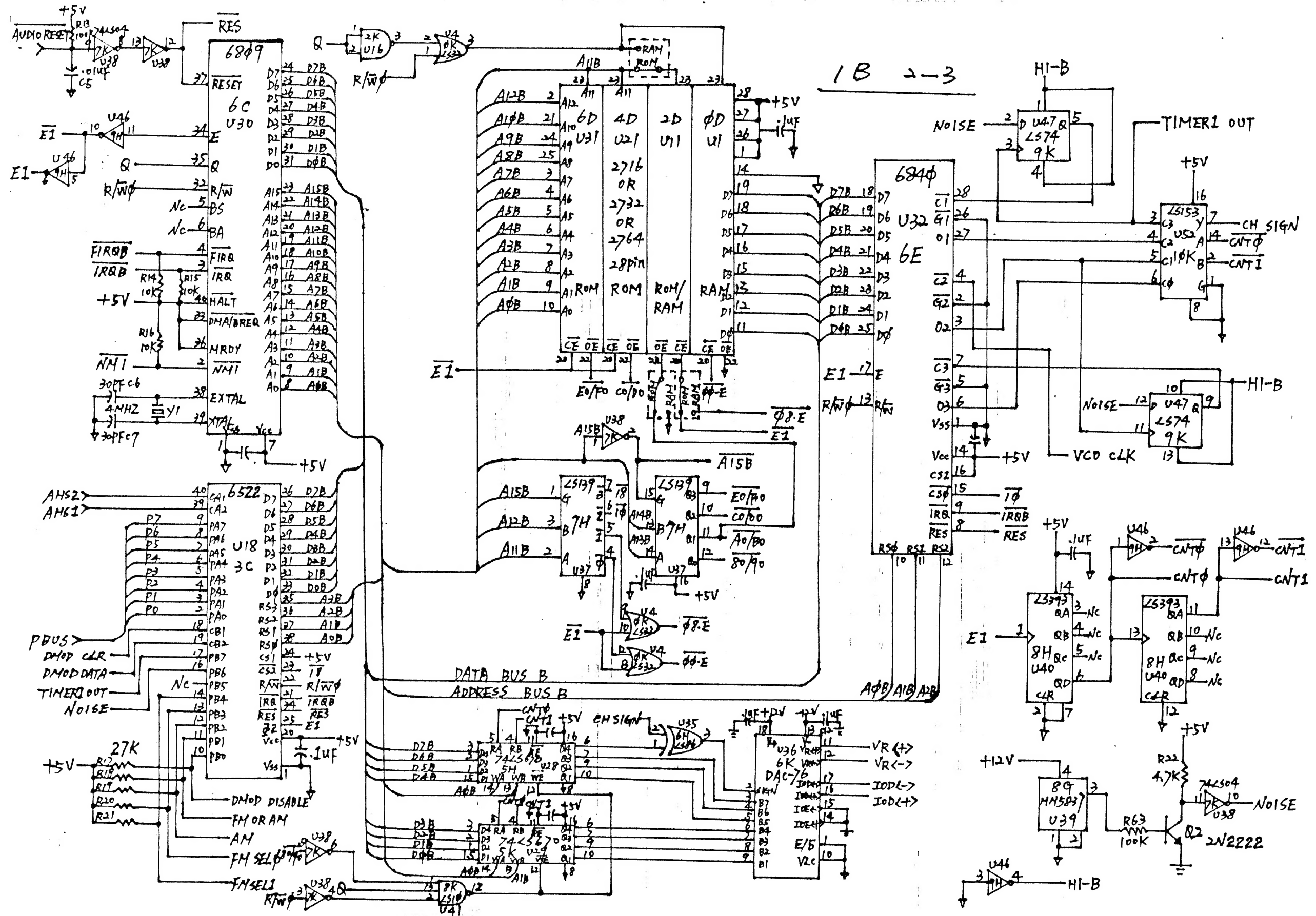




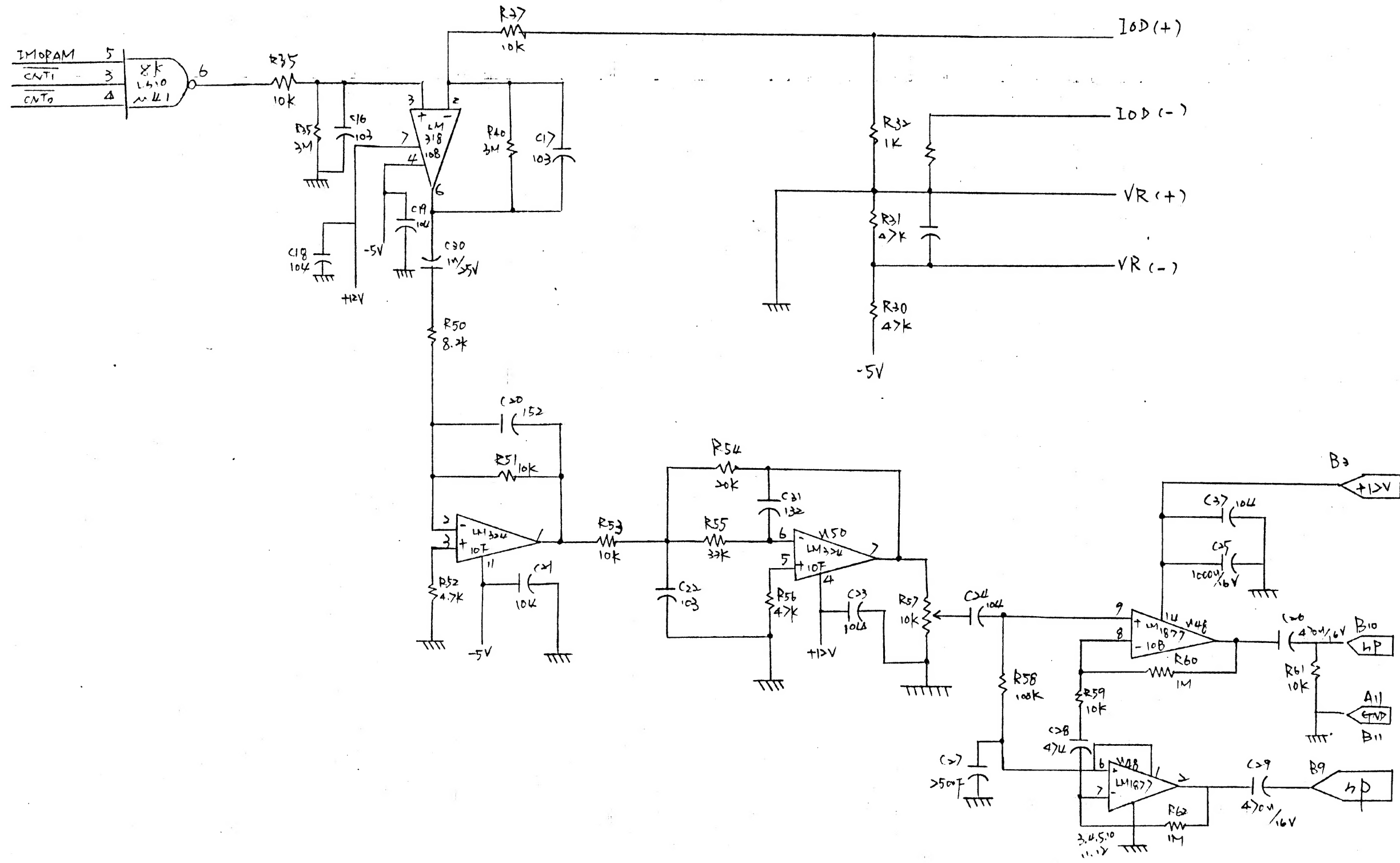


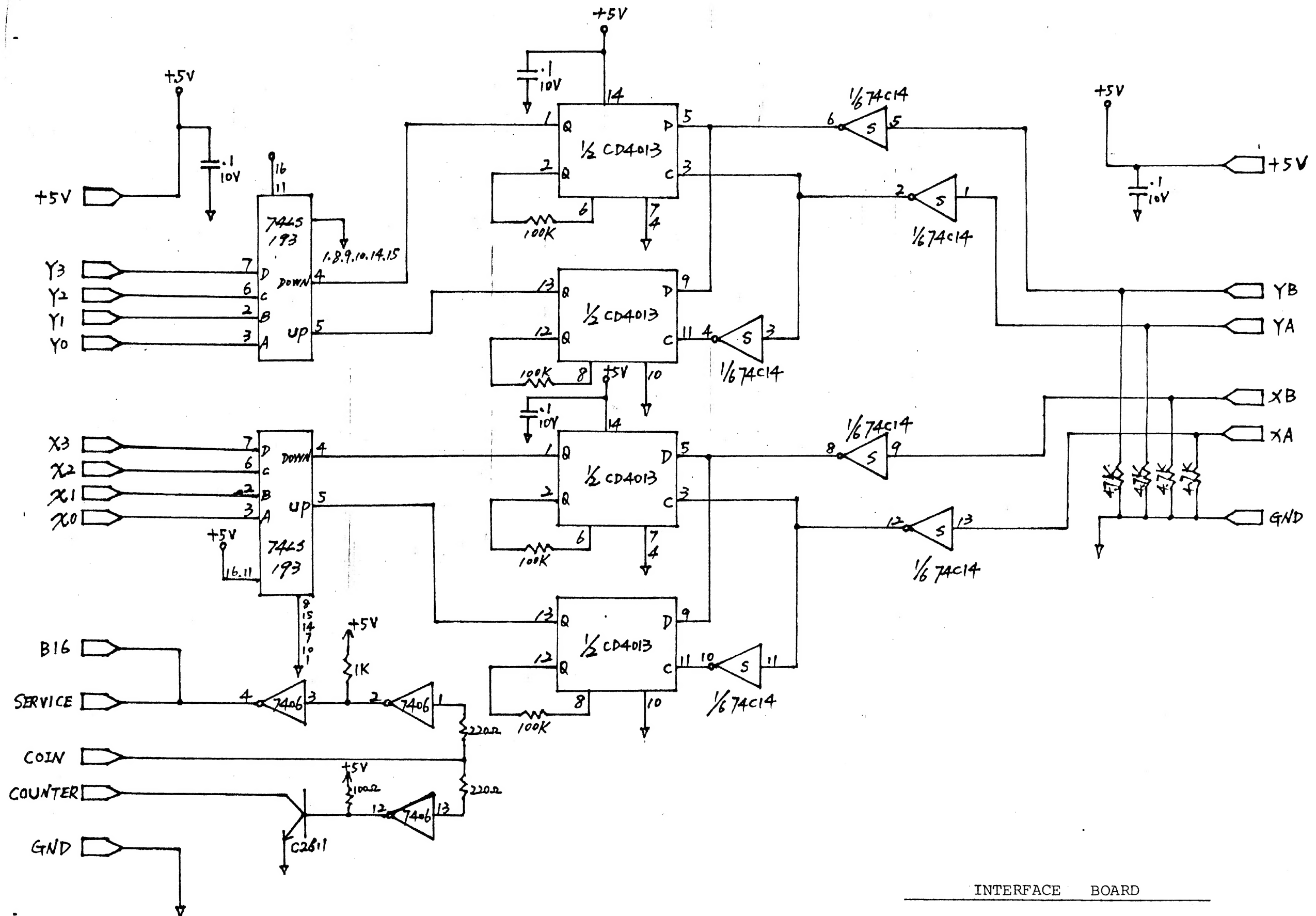












INTERFACE BOARD